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EXAMINER

SCIACCA, SCOTT M

ART UNIT

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |   |  |
|------------------------------|--------------------------------------|---|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/670,257 | <b>Applicant(s)</b><br>MCCORMICK ET AL. |  |
|                              | <b>Examiner</b><br>Scott M. Sciacca  | <b>Art Unit</b><br>2446                 |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-20, 22-34, 36-39 and 41-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-20, 22-34, 36-39 and 41-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This office action is responsive to communications filed on April 23, 2009. Claims 1, 3, 6-9, 13, 14, 16-18, 24, 25, 29, 30, 32-34, 39 and 44-46 have been amended. Claims 1-4, 6-20, 22-34, 36-39 and 41-46 are pending in the application.

### ***New Examiner Of Record***

2. The current application is now under examination by a new examiner of record.

### ***Claim Rejections - 35 USC § 112***

3. In light of the amendments to the claims, the rejection under this heading is hereby withdrawn.

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-4, 6-20, 22-34, 36-39, and 41-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Black et al. (USPN 7,143,153) (hereinafter Black) in view of Nisbet et al. (USPN 6,834,304) (hereinafter Nisbet), Crooks et al. (USPN 6,088,688) (hereinafter Crooks) and Burgess et al. (USPN 5,796,633) (hereinafter Burgess).

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5. Referring to claim 1, Black discloses a method of monitoring and diagnosing resource utilization within a connection oriented network made of network elements (i.e. ATM network) (e.g. abstract; col. 28, lines 40-55) and a connection resource tracker (the phrase “for maintaining a database of resource utilization” is a statement of intended use and holds no patentable weight) (i.e. the system describes an alarm which notifies a user when a particular attribute exceeds a threshold and then only if it remains over that threshold for a particular number of sampling periods, thereby inherently requiring the system to store the previously sampled resource utilizations), comprising the steps of:

specifying a plurality of resource types for the network elements of the network being defined by a capacity and a utilization (i.e. group similar devices together for a particular threshold group) (col. 170, lines 25-49);

providing a utilization threshold set at a high level for a each type of resources (i.e. threshold level for the particular group) (the phrase “used to determine whether resources are being over-utilized” is a statement of intended use and therefore holds no patentable weight) (col. 170, lines 25-49);

measuring the utilization of all resources at a network element (i.e. monitor network resource attributes) (col. 167, lines 15-25);

determining if the utilization of the resource is above the utilization threshold (i.e. triggers threshold violation) (col. 167, lines 25-65); and

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generate a report of the threshold violators and send this report to a particular operator (i.e. user is notified as to the particular threshold violations) (col. 173, lines 9-20).

Black does not specifically disclose that the determination and generation of the report is done in response to a user's request, rather it is done periodically, and the use of a "specified threshold", which checks a timer and will send an alarm if the level is above the threshold for the length of the timer. However, Black further discloses that a user is able to generate a plurality of rules to monitor the health of the system (col. 167, line 65), that a sampling timer is utilized to determine when to periodically sample the attribute (col. 169, lines 27-41), and notifying a user (i.e. generating an alarm) when a particular attribute exceeds a particular threshold for a particular number of sampling periods (col. 169, lines 20-27). One of ordinary skill in the art could clearly create the claimed "specified threshold" (the phrase "used to determine whether resources used are exceeding a maximum allowable limit" is a statement of intended use and therefore hold no patentable weight) rule and then set a specified time limit for which to be notified using the "sampling frequency" and sampling periods values in the threshold rules (i.e. if the user wants to be notified if the "bandwidth" threshold is exceeded for 30 seconds, the user can set the sampling frequency to 5 seconds, and then set the threshold rule to notify the user if the threshold is exceeded for 6 sampling periods). One of ordinary skill in the art would have been motivated to create this rule in the system of Black in order to tailor the system to the user's liking.

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In analogous art, Nisbet discloses another method of monitoring resource utilization within a network (e.g. abstract) which discloses creating a network audit report which reads a network element file and compares parameters of the element with the threshold values and if they are out of the bounds of the threshold, create a file which holds the parameters which are out of a valid range for the particular element (e.g. abstract). It would have been obvious to one of ordinary skill in the art to combine the teaching of Black with Nisbet in order to utilize Nisbet's audit report with the monitoring capabilities of Black in order to determine if the network elements of Black are ready for a network reconfiguration or upgrade as supported by Nisbet (col. 2, lines 5-10).

Black does not specifically state that the resource utilization comparison is from a resource utilization database. In, analogous art, Crooks discloses another resource tracking system which receives resource usage information into a host computer for report generation (e.g. abstract). It would have been obvious to one of ordinary skill in the art to incorporate the resource usage database of Crooks with the threshold utilization system of Black in order for the threshold monitoring system can use this database information to be used for various rules, thereby providing more flexibility for the user as to what threshold rules may be applied.

Black does not specifically state that the timer associated with the resource is reset after an alarm has been generated for the resource. However, Burgess teaches resetting a timer after an alarm has been generated (col. 13, lines 44-51 & col. 13, lines 53-55). As shown in Fig. 7, after an alert is generated in step 128, flow returns to step

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120 where the timer is reset. Burgess also teaches that if the utilization is above the corresponding specified threshold for at least one said resource, checking whether a flag associated with the resource indicates that an alarm has recently been generated for the resource and, if the flag does not indicate that the alarm has recently been generated, generating an alarm and setting a flag to indicate that an alarm has recently been generated (col. 13, lines 44-51 & col. 13, lines 53-60). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Black to reset a timer after an alarm has been generated and to check whether a flag indicates that an alarm has recently been generated. Motivation for doing so would be to prevent the same alarm being generated twice.

6. Referring to claim 2, Black discloses the resource includes bandwidth (i.e. Rx and Tx traffic) (Figure 68, resource ID no. 7312).

7. Referring to claim 3, Black discloses providing a list of resources, and wherein the step of determining whether a utilization of a resource is above the corresponding utilization threshold is carried out only with respect to resources within the list of resources (this is an inherent feature, since the switch would not check resources which the administrator does not care about, since they are not in the threshold table, they would not be checked) (Figure 68).

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8. Referring to claim 4, Black discloses the threshold is provided from an operator (col. 167, line 65 to col. 168, line 14).

9. Referring to claim 5, Black discloses generating a report (the Office construes “report” as any notice which will identify a resource with any information, such as an SNMP trap) including any identified resources and presenting the report to an operator (i.e. report threshold events to SNMP manager, which sends an SNMP trap, which notifies the NMS client, which displays a notice to the user through GUI 895) (col. 169, lines 40-50).

10. Claims 6, 8-10 are rejected for similar reasons as stated above. Furthermore Black discloses generating an alarm (i.e. SNMP trap) (col. 169, lines 40-50).

11. Referring to claim 7, Black discloses the invention substantively as described in claim 5. Black does not explicitly state that the report includes the utilization of any identified resources in the report, rather a notice is sent to the user, however this information would be easily sent via an SNMP trap. By this rationale, “Official Notice” is taken that both the concepts and advantages of providing for the utilization of any identified resource in the report is well known and expected in the art. It would have been obvious to one of ordinary skill in the art to modify the teaching of Black to include the resource utilization level in the report in order to provide valuable information to the administrator for effectively managing the network.



12. Referring to claim 11, Black discloses determining whether a utilization of a resource is above the corresponding utilization threshold and the step of identifying each such resource are carried out repeatedly (i.e. sampling frequencies) (col. 169, lines 27-40).

13. Referring to claim 12, Black discloses pausing after the step of identifying each resource (i.e. the sampling frequency is a periodic check, and therefore it will pause until the next time the resource must be checked) (col. 169, lines 27-40).

14. Referring to claim 13, Black discloses the invention substantively as described in claim 9. Black does not explicitly state that the switch monitors the receipt of call connection establishment signals and does the determination only upon receipt of a call connection establishment signal, however this is a well known event triggered determination. By this rationale, "Official Notice" is taken that both the concepts and advantages of providing for checking the utilization threshold only upon receipt of an establishment signal is well known and expected in the art. It would have been obvious to one of ordinary skill in the art to modify the system of Black to include in the sampling frequency list a choice of 'on receipt of an establishment signal' in order to eliminate needless checking of values which would not change if there is no call connection signals, thereby reducing overhead processing of the device.

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15. Referring to claim 14, Black discloses the invention substantively as described in claim 13. Black does not explicitly state that an alarm is generated only when an alarm has not been generated since the utilization of the resource last rose above the threshold, however this is a well known technique in order to reduce redundant alarms. By this rationale, "Official Notice" is taken that both the concepts and advantages of providing for generating an alarm only when an alarm has not been generated is well known and expected in the art. It would have been obvious to one of ordinary skill in the art to modify the teaching of Black to include alarm suspensions in order to reduce the likelihood of flooding a particular management computer with redundant alarms, thereby reducing overhead processing of the management server as well as reducing bandwidth congestion in the network.

16. Claims 15-22, 23-28, and 29-46 are rejected for similar reasons as stated above. Furthermore Black discloses that the system can identify resources that are below the corresponding utilization threshold (i.e. if attribute<5) (col. 169, lines 1-10).

### ***Response to Arguments***

17. Applicant's arguments filed on 4/23/2009 with respect to Claims 1, 17, 33 and 45 have been considered but are moot in view of the new grounds of rejection.

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18. Applicant's arguments filed on 4/23/2009 with respect to Claims 34, 39, 44 and 46 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new grounds of rejection is made in view of Burgess et al. (USPN 5,796,633).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott M. Sciacca whose telephone number is (571) 270-1919. The examiner can normally be reached on Monday thru Friday, 7:30 A.M. - 5:00 P.M. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Pwu can be reached on (571) 272-6798. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Scott M. Sciacca/  
Examiner, Art Unit 2446

/Jeffrey Pwu/  
Supervisory Patent Examiner, Art Unit 2446